2010 Demographic Analysis Press Conference and Technical Meeting

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Census Bureau Webinar

What is Demographic Analysis (DA)?

Demographic Analysis is a term used to refer to a set of methods that have historically been used to develop estimates of the population for comparison with decennial census counts. DA estimates are developed from historical vital statistics, estimates of international migration, and other data sources that are essentially independent of the census.

These estimates are then compared to census counts and differences by age, sex, and limited race groups are examined.

The Demographic Accounting Equation

$$P = B - D + I - E$$

P = Population
B = Births
D = Deaths
I = Immigration
E = Emigration

Two DA Estimation Subgroups

- Estimates for ages under 65 are based on historical components of change for cohorts beginning with 1945 [births, deaths, immigration, emigration]:

$$P = B - D + I - E$$

- Estimates for ages 65 and over are based on aggregate Medicare enrollment, and estimates of those not enrolled.

Key DA Data Inputs: Vital Statistics (Births and Deaths)

- Historical vital statistics data from the National Center for Health Statistics (starting with 1945).

- Estimates of birth registration completeness based on the birth registration tests.

- Birth registration tests were conducted in 1940, 1950, and 1969. The 1969 test included births that occurred from 1964 to 1968.

- With the exception of infant deaths prior to 1960, death registration is assumed to have been complete since 1945.

Key DA Inputs: Estimates of International Migration

- Estimates of international migration developed from American Community Survey (ACS) data.

- Estimates were developed using the question on residence one year ago and year of entry.

  – Where did this person live 1 year ago?

  – When did this person come to live in the United States?

- Historical estimates of international migration.

Key DA Data Inputs: Medicare Enrollment

- Tabulations of Medicare enrollees from the Medicare enrollment database.
- Estimates of those not enrolled in Medicare from the Current Population Survey.

The DA Race Categories: Black and non-Black

- There are two primary reasons why the DA estimates have been limited to the Black and non-Black race categories:
  - Information on race in the current Office of Management and Budget race categories is not available for all years and all states in the historical vital statistics data.
  - The 2010 Census includes the option of selecting more than one race. The historical vital statistics did not include this option. The uncertainty that this introduces into the classification of births by race limits the usefulness of DA estimates for race categories other than Black and White.

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Historical Differences Between the DA Estimates and Census Counts

Table 1. Difference of Demographic Analysis Estimate and Census Count of the Resident Population: April 1, 1940 to April 1, 2000

Population by race	(Numbers in thousands)						
	1940[1]	1950[1]	1960	1970	1980	1990	2000
Total							
DA estimate	139,678	157,863	185,024	208,955	229,347	252,876	281,760
Census count	132,165	151,326	179,323	203,302	226,546	248,710	281,422
Difference	-7,513	-6,537	-5,700	-5,653	-2,802	-4,166	-338
Percent difference	-5.38	-4.14	-3.08	-2.71	-1.22	-1.65	-0.12
Black							
DA estimate	14,052	16,271	20,199	24,154	27,940	32,265	37,443
Census count	12,866	15,046	18,872	22,581	26,683	30,483	36,404
Difference	-1,187	-1,225	-1,327	-1,573	-1,257	-1,782	-1,039
Percent difference	-8.44	-7.53	-6.57	-6.51	-4.50	-5.52	-2.78
Non-Black							
DA estimate	125,626	141,592	164,825	184,801	201,407	220,610	244,317
Census count	119,300	136,280	160,451	180,721	199,862	218,227	245,018
Difference	-6,326	-5,312	-4,374	-4,079	-1,545	-2,384	701
Percent difference	-5.04	-3.75	-2.65	-2.21	-0.77	-1.08	0.29

[1] Census counts for 1940 and 1950 include Alaska and Hawaii.

Source: U.S. Census Bureau

Focus for DA in 2010

- Collaboration with external experts.

- Release of the DA estimates prior to the release of the 2010 census counts.

- A component based sensitivity analysis and a range of DA estimates.

- Alternative approaches for assigning race to the birth records.

- The use of data from the ACS to estimate international migration.

- Estimates by Hispanic origin (by age and sex for ages under 20).

The 2010 Demographic Analysis Press Conference and Technical Meeting

When:
December 6, 2010 – 10:00 a.m.

Where:
The George Washington University
City View Room
Elliot School of International Affairs, 7th Floor
1957 E St. NW
Washington, DC 20052

Who:
Robert Groves, director, U.S. Census Bureau
Jason Devine, chief, Methodology Research and Development Branch, U.S. Census Bureau
Demographers external to the Census Bureau

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What is the December 6 DA News Conference?

On December 6, the Census Bureau will host a group of academics, external researchers, and federal employees to discuss the 2010 Demographic Analysis estimates. All of the participants are knowledgeable about Demographic Analysis techniques and/or the data used to develop the Demographic Analysis estimates.

Five series of DA population estimates will be released on December 6 that will form the foundation for an initial, demographically based, assessment of the quality of the 2010 Census national count. A range of estimates is being provided to clearly communicate the uncertainty around the estimates.

The day will include both a DA news conference and a technical DA meeting. Members of the press are invited to stay for the technical meeting and participants in the technical meeting will be present for the news conference.

What Will Be Released on December 6?

- Five series of DA population estimates by single year of age, sex, and race (Black and non-Black).

- Five series of DA population estimates by single year of age, sex, and Hispanic origin for ages under 20.

- A description of how each series of estimates was developed.

- The individual components of each estimate series (births, deaths, international migration, Medicare enrollment).

Uncertainty in the DA Estimates

- For 2010 DA, we have developed five series of estimates to demonstrate the impact of varying assumptions in three of the components of the DA estimates (births, international migration, Medicare enrollment).

- Uncertainty varies across each DA estimate by single year of age, sex, race (Black and non-Black), and Hispanic origin (under age 20).

- The five series of DA estimates were developed to more clearly communicate the uncertainty in the DA estimates.

Summary

- The DA event on December 6 will include both a media event and a technical DA meeting.

- Five series of DA population estimates by age, sex, race (Black and non-Black) and five series by Hispanic origin (under age 20) will be released on December 6, 2010.

- DA has three major components: Vital Statistics (births and deaths), International Migration, and Medicare Enrollment data.

- Five series of DA estimates are being provided to more clearly communicate the uncertainty in the estimates.

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Contact Us

For more information, please contact the Public Information Office at 301-763-3691 or pio.2010@census.gov

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